

- fossil energy
- environmental
- energy efficiency
- other

## GROUNDWATER RESEARCH PROGRAM

### States Impacted:

Alaska, Colorado, Kansas,  
Louisiana, Michigan, Montana,  
New Mexico, North Dakota,  
Ohio, Oklahoma,  
Pennsylvania, Texas, Utah,  
Wyoming

### Benefit Areas:

Surface and Subsurface  
Environment, Cost Savings,  
Energy Security, and Stable  
and Reliable Domestic Supply

### Participants:

University of North Dakota  
EERC, Gas Research Institute

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### Description

The Gas Research Institute (GRI) Groundwater Research Program provides the gas industry with laboratory and field research related to waste management. The resulting information (1) provides guidance for the management of gas industry-related wastes, (2) improves analytical techniques for evaluating the presence of organic and inorganic constituents in environmental media, (3) improves technologies for remediating soils and groundwaters impacted by gas industry activities, and (4) increases the efficiency of site assessment and remediation.

### Goals

The goal of this project is to provide information regarding the extent and severity of subsurface issues related to natural gas exploration, production, and processing.

### Tangible Benefits

**National:** Cost savings realized through this program will result in lower production costs and lower gas cost to the American consumer. For one activity in this program — dealing with mercury contamination at gas-metering sites, GRI estimated that savings of at least \$11 million would be realized. The information generated will also be applied to other industries. The availability of effective, low-cost remediation technologies encourages government and industrial entities to initiate and complete environmental cleanup activities, which ultimately lead to a cleaner and safer environment for everyone.

**Regional:** By increasing the efficiency and cost-effectiveness of soil and groundwater remediation, the environmental impact of natural gas exploration, production, and processing activities can be minimized. Minimizing such impacts is critical if those activities are to be conducted in environmentally sensitive areas, such as those typically found in the Gulf Coast and Rocky Mountain regions.

**Local:** Increased efficiency and cost-effectiveness of soil and groundwater remediation technologies will result in significant savings for the oil and gas industries. For example, according to industry management sources, there is a potential savings of \$700,000 to \$3.5 million per site for reduced remediation costs at natural gas-processing plant sites. Such savings at a processing plant can increase the economic viability of the plant, thereby extending its operational life. These plants typically make significant contributions to local economies, particularly with regard to employment and tax revenues.